REMARKS

Applicants withdraw the traverse of the restriction requirement.

Claims 1-6, 9-16, and 19-24 are pending. By the foregoing amendment, Claims 1-3, 5, 6, 16 and 19 are canceled without prejudice or disclaimer. Claims 4, 9 and 20 are amended by incorporating limitations from canceled catalyst claims. Claims 12, 14 and 15 have been amended to place them in method format. Claims 25-41 are added. Support for the added claims can be found at page 7, lines 21-25 (claims 25, 26); page 8, lines 10-25 (claims 27-29); page 9, lines 5-22 (claims 30-32); page 10, lines 1-5 (33, 34); page 11, lines 5-10 (35); page 12, lines 5-10 (36); col. 5, line 40 – col. 6, line 28 of incorporated US patent no. 6,680,044 (37-41); and elsewhere in the specification. These amendments do not present new matter and entry of the amendment is respectfully requested.

The paragraph that was objected to has been amended.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 4, 9-13 and 21-24 have been rejected on the ground that the specification does not reasonably provide enablement for the full scope of all chemical reactions. This rejection is respectfully traversed.

All of the claims require a catalyst composition over the carbon nanotubes. The carbon nanotubes are an underlying support. As mentioned on page 4 of the specification, the invention may provide advantages such as "improved heat transport, controlling the direction of heat transport, enhanced surface area, excellent thermal stability, excellent thermal conductivity, reduced mass transfer limitations, utility in microreactors, ready adaptability in fixed-bed type reactors, and increased loading levels of catalyst." While the nanotubes help provide these advantages, the recited catalyst composition can provide catalytic activity for any desired reaction. Thus, persons skilled in the art could, without undue experimentation, select a suitable catalyst composition (to deposit on the nanotubes) and use known reaction conditions to conduct any desired reaction. In other words catalyst compositions and corresponding reaction conditions are already known, they do not need to be repeated in the specification. As noted at page 8, line 32, "The invention is not limited to specific

catalyst types." Therefore, the person skilled in the art could select known catalyst compositions and conditions and practice the invention with no more than routine experimentation. Accordingly, the claimed invention is commensurately enabled and withdrawal of the first paragraph rejection is respectfully requested.

Rejection under 35 U.S.C. § 112, second paragraph

The claims have been rejected on the ground that the claims are vague and indefinite because the reactant and the final product are not known in the catalyzed reaction. This rejection is respectfully traversed.

The terms "reactant" and "product" are among the most basic terms in Chemistry. Zumdahl in "Introductory Chemistry," 4th ed. (2000) defines a "reactant" as "a starting substance in a chemical reaction" and "product" as "a substance resulting from a chemical reaction." There is no doubt as to the metes and bounds of the claims, they encompass any chemical reaction catalyzed by the inventive catalyst. Therefore, the section 112, second paragraph is improper and should be withdrawn.

Obviousness-Type Double Patenting

To overcome this rejection, a Terminal Disclaimer for U.S. Patent No. 6,713,519 is attached.

Rejection under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,514,897

Claims 4, 9, 20 and 21 have been rejected as being anticipated by U.S. Patent No. 6,514,897 to Moy et al. This rejection is respectfully traversed.

Moy et al. in U.S. Patent No. 6,514,897 describe rigid porous structures formed by bonding nanotubes with nanofibers at the interconnect points. The structure may be used as a catalyst support.

Claims 4, 9 require a support material having through porosity, over which is disposed a layer of carbon nanotubes. This structure is not described in the cited reference.

Claims 20 and 21 require a support, nanotubes over the support and an oxide layer disposed over the nanotubes. The structure described in the cited reference does not teach or suggest nanotubes on a support.

Therefore, the claimed invention is patentable over the cited reference, and withdrawal of the prior art rejection is respectfully requested.

Consideration of Previously Submitted Information Disclosure Statement

On Oct. 5, 2004, Applicants submitted an electronic Information Disclosure Statement. A copy of that IDS is included with this Amendment. Please consider those references and initial the form.

Copending Application

The Examiner should be aware that related application, ser. no. 10/956,306 is pending.

Conclusion

If the Examiner has any questions or would like to speak to Applicants' representative, the Examiner is encouraged to call Applicants' attorney at the number provided below.

Respectfully submitted,

Date: 31 May 2005

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